AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A positive resist composition comprising (A) a resin which itself is insoluble or poorly soluble in an alkali aqueous solution but becomes soluble in an alkali aqueous solution by the action of an acid, wherein the content of halogen atoms in the resin is 40% by weight or more, at least one of structural units constituting the resin being is a structural unit having an alicyclic hydrocarbon skeleton, and the structural unit having an alicyclic hydrocarbon skeleton contains therein at least one group rendering the resin soluble in an alkali aqueous solution by the action of an acid, and at least one halogen atom, and a carbon in the alicyclic hydrocarbon skeleton may be substituted by an oxygen a structural unit of the formula (7):

$$\begin{pmatrix}
F_2 \\
C \\
CF \\
F_2C \\
F_3C \\
OR_8
\end{pmatrix}$$
(7)

wherein R₈ represents a hydrogen or an acid-unstable group dissociating in the presence of an acid, and n represents 0 or 1, and

(B) (a) an acid generator comprising a sulfonium salt of the formula (I)

$$Q^{1}$$
 Q $Q^{5}SO_{3}^{-}$ (1)

2

Docket No.: 2185-0708P

Docket No.: 2185-0708P

wherein Q^1 and Q^2 each independently represent alkyl having 1 to 6 carbon atoms or cycloalkyl having 3 to 10 carbon atoms, or Q^1 and Q^2 bond to form divalent acyclic hydrocarbon having 3 to 7 carbon atoms which form a ring together with the adjacent S^+ , and one or more -CH₂- in the divalent acyclic hydrocarbon is optionally substituted by -CO-,-O- or-S-; Q^3 represent hydrogen, Q^4 represents alkyl having 1 to 6 carbon atoms, cycloalkyl having 3 to 10 carbon atoms or phenyl optionally substituted by alkyl having 1 to 6 carbon atoms, or Q^3 and Q^4 bond to form 2-oxocycloalkyl together with the adjacent -CHCO-, and Q^5 SO₃- represents organic sulfonate ion, and

(b) at least one onium salt selected from the group consisting of a triphenylsulfonium salt of the formula (IIa) and a diphenyliodonium salt of the formula (IIb)

$$P^{1}$$

$$P^{2}$$

$$P^{4}$$

$$P^{5}SO_{3}$$

$$P^{7}SO_{3}$$

$$P^{7}SO_{3}$$

$$P^{7}SO_{3}$$

$$P^{7}SO_{3}$$

$$P^{7}SO_{3}$$

wherein P¹, P², P³, P⁴ and P⁵ each independently represent hydrogen, hydroxyl, alkyl having 1 to 6 carbon atoms or alkoxy having 1 to 6 carbon atoms, and P⁶SO₃- and P⁷SO₃- each independently represent organic sulfonate ion.

2. (Previously Presented) The positive resist composition according to Claim 1 wherein Q¹ and Q² bond to form divalent acyclic hydrocarbon having 3 to 7 carbon atoms which form a ring together with the adjacent S⁺, and one or more -CH₂- in the divalent acyclic hydrocarbon is optionally substituted by -CO₋, -O- or -S-.

3. (Original) The positive resist composition according to Claim 1 wherein Q⁵, P⁶ and P⁷ each independently represent alkyl having 1 to 8 carbon atoms, perfluoroalkyl having 1 to 8 carbon atoms, aromatic group having 6 to 12 carbon atoms or camphor group.

Docket No.: 2185-0708P

- 4. (Original) The positive resist composition according to Claim 1 wherein the weight ratio of (b)/(a) is 9 to 1/9 wherein (a) is a sulfonium salt of the formula (I), and (b) is at least one onium salt selected by from the group consisting of a triphenylsulfonium salt of the formula (Ila) and diphenyliodonium salt of the formula (Ilb).
- 5. (Currently Amended) The positive resist composition according to Claim 1 wherein the content of the structural unit having an alicyclic hydrocarbon skeleton which contains therein at least one group rendering the resin soluble in an alkali aqueous solution by the action of an acid, and at least one halogen atom, structural unit of the formula (7) is 15 to 50 mol % in the total structural units in the resin.

6.-15. (Cancelled)

16. (Withdrawn) The positive resist composition according to Claim 1 wherein the resin is a copolymer containing a structural unit of the following formula (8) and a structural unit of the following formula (8-1):

$$\begin{pmatrix}
F_2 \\
C \\
F_2C
\end{pmatrix}$$

$$(8) \qquad \qquad \begin{pmatrix}
F_2 \\
C \\
F_2C
\end{pmatrix}$$

$$(8-1) \qquad \qquad (8-1) \qquad \qquad (8-1)$$

$$F_3C \qquad OH \qquad ADM/mao$$

Docket No.: 2185-0708P

wherein R₈ has the same meaning as described above.

17. (Withdrawn) The positive resist composition according to Claim 1 wherein the resin is a copolymer containing a structural unit of the following formula (9) and a structural unit of the following formula (9-1):

$$\begin{pmatrix}
F_2 \\
C \\
CF \\
F_2C
\end{pmatrix}$$

$$F_2C \\
F_3C$$

$$OR_8$$

$$(9)$$

$$\begin{pmatrix}
F_2 \\
C \\
CF \\
OH
\end{pmatrix}$$

$$(9-1)$$

wherein, R₈ has the same meaning as described above.

18.-19. (Cancelled)

- 20. (Original) The positive resist composition according to Claim 1 which further comprises a basic nitrogen-containing organic compound as a quencher.
- 21. (New) The positive resist composition according to Claim 1, wherein R_8 is a group of the formula (5):

wherein R₉ and R₁₀ each independently represent an alkyl group having 1 to 14 carbon atoms or a hydrogen atom, the alkyl group may have at least one group selected from the

5 ADM/mao

Reply to Office Action of June 23, 2006

group consisting of halogen atoms and alicyclic hydrocarbon groups; R₁₁ represents an alkyl group having 1 to 14 carbon atoms, alicyclic hydrocarbon group, lactone ring group or aromatic hydrocarbon group, the alkyl group may have at least one substituent selected from the group consisting of halogen atom, alicyclic hydrocarbon group and aromatic hydrocarbon group, the alicyclic hydrocarbon group, lactone ring group and aromatic

Docket No.: 2185-0708P

hydrocarbon group in R₁₁ may each independently have at least one substituent selected

from the group consisting of halogen atoms and alkyl group.

22. (New) The positive resist composition according to Claim 16, wherein R_8 is

methoxymethyl group or ethoxymethyl group.

23. (New) The positive resist composition according to Claim 17, wherein R_8 is

methoxymethyl group or ethoxymethyl group.

24. (New) The positive resist composition according to Claim 21, wherein R_8 is

methoxymethyl group or ethoxymethyl group.

6 ADM/mao